

ABSTRACT

An apparatus and method for performing quality inspections on a test surface based on optically stimulated emission of electrons. In one embodiment, the apparatus comprises a device for producing optical radiation having a plurality of different spectrum lines, selecting at least one of the spectrum lines, and directing the selected spectrum line to the test surface, and circuitry for detecting a current of photoelectrons emitted from the test surface, generating a signal indicative of photoelectron current, and for indicating a condition of quality based on the generated signal indicative of the photoelectron current. In one embodiment, the method comprises producing optical radiation having a plurality of different spectrum lines, selecting at least one of the spectrum lines and directing the selected spectrum line to the test surface, detecting a current of photoelectrons emitted from the test surface and generating a signal indicative of photoelectron current, and indicating a condition of quality based on the generated signal indicative of the photoelectron current.